

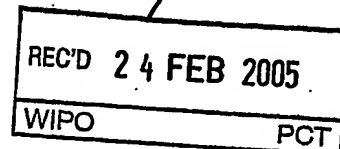
PATENT COOPERATION TREATY



PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)



Applicant's or agent's file reference P 8 067 PCT/EU		FOR FURTHER ACTION		See Form PCT/IPEA/416
International application No. PCT/IB2004/002002		International filing date (day/month/year) 16.06.2004 ✓	Priority date (day/month/year) 03.07.2003 ✓	
International Patent Classification (IPC) or national classification and IPC B67C3/22, B67C3/10, B67C3/26, B67C3/00				
Applicant STK STOCCHI PROGETTI SRL ✓				
<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 6 sheets, including this cover sheet. ✓</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input checked="" type="checkbox"/> sent to the applicant and to the International Bureau) a total of 3 sheets, as follows: ✓</p> <p><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>				
<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the opinion</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input checked="" type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>				
Date of submission of the demand 18.01.2005 ✓		Date of completion of this report 25.02.2005		
Name and mailing address of the international preliminary examining authority:  European Patent Office - P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk - Pays Bas Tel. +31 70 340 - 2040 Tx: 31 651 epo nl Fax: +31 70 340 - 3016		Authorized Officer Martínez Navarro, A. Telephone No. +31 70 340-2876 		

**INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY**

International application No.
PCT/IB2004/002002

Box No. I Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language , which is the language of a translation furnished for the purposes of:
- ☐ international search (under Rules 12.3 and 23.1(b))
 - ☐ publication of the international application (under Rule 12.4)
 - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)
2. With regard to the **elements*** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

Description, Pages

1-4 as originally filed

Claims, Numbers

1-6 received on 18.01.2005 with letter of 18.01.2005

Drawings, Sheets

1/2, 2/2 as originally filed

- ☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing
3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages
 - ☐ the claims, Nos.
 - ☐ the drawings, sheets/figs
 - ☐ the sequence listing *(specify)*:
 - ☐ any table(s) related to sequence listing *(specify)*:
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages
 - ☐ the claims, Nos.
 - ☐ the drawings, sheets/figs
 - ☐ the sequence listing *(specify)*:
 - ☐ any table(s) related to sequence listing *(specify)*:

* If item 4 applies, some or all of these sheets may be marked "superseded."

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Box No. IV Lack of unity of invention

1. ☐ In response to the invitation to restrict or pay additional fees, the applicant has:
- ☐ restricted the claims.
 - ☐ paid additional fees.
 - ☐ paid additional fees under protest.
 - ☐ neither restricted nor paid additional fees.
2. ☒ This Authority found that the requirement of unity of invention is not complied with and chose, according to Rule 68.1, not to invite the applicant to restrict or pay additional fees.
3. This Authority considers that the requirement of unity of invention in accordance with Rules 13.1, 13.2 and 13.3 is
- ☐ complied with.
 - ☐ not complied with for the following reasons:
4. Consequently, this report has been established in respect of the following parts of the international application:
- ☐ all parts.
 - ☐ the parts relating to claims Nos. .

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	1-6
	No: Claims	
Inventive step (IS)	Yes: Claims	1-6
	No: Claims	
Industrial applicability (IA)	Yes: Claims	1-6
	No: Claims	

2. Citations and explanations (Rule 70.7):

see separate sheet

Re Item IV

Lack of unity of invention

- 1 This Authority considers that there are 2 inventions covered by the claims indicated as follows:
 - I: Claims 1 to 5 directed to a filling valve with an auxiliary conduit surrounding the valve body.
 - II: Claim 6 directed to a filling valve having a closing lid.
- 2 The reasons for which the inventions are not so linked as to form a single general inventive concept, as required by Rule 13.1 PCT, are as follows:
 - 2.1 The prior art has been identified as document EP 1 323 667 A and discloses:

Filling valve for an aseptic filling of alimentary liquids comprising a feeding conduit (4,8) for a product stream to be filled in a container such that the product stream flows from the valve in an area near a filling mouth of the container (7) underneath, wherein the product stream is isolated from the atmosphere by means of a coaxial flow of an aseptic and/or inert gas, which is fed by an auxiliary circuit (22,24) surrounding the filling mouth, and wherein the auxiliary circuit (22,24), which is fed during a filling operation by a flow of the sterile and/or inert gas for assuring an aseptic condition of the filling process, is adapted for being used for a re-circulation of a sanitizing fluid fed by the feeding conduit (4,8).
 - 2.2 It follows that the following technical features of claims 1 and 6 make a contribution over the prior art and can be considered as special technical features within the meaning of Rule 13.2 PCT:

Claim 1. The auxiliary conduit is arranged and formed such that the valve body is surrounded coaxially by the auxiliary conduit.

Claim 6. A lid is included, by which during the sanitization of the filling mouth the valve is closed in cooperation with a sliding manifold, which is mounted on the body of the filling valve.

- 2.3 The problem solved by these special technical features can therefore be construed as:

Claim 1. The fabrication of the valve is simplified, since the construction of the auxiliary conduit is simpler and this special feature allows the product connection to be above the auxiliary conduit connection, so that the auxiliary conduit does not interfere with the product inlet.

Claim 2. The sanitization process is made faster, since there is no need of installing additional devices.

- 2.4 Neither the aforementioned problems underlying the subjects of the claimed inventions, nor their solutions defined by the special technical features allow for a relationship to be established between the said inventions, which involves a single general inventive concept.

- 2.5 In conclusion, the groups of claims are not linked by common or corresponding special technical features and define 2 different inventions not linked by a single general inventive concept. The application, hence does not meet the requirements of unity of invention as defined in Rules 13.1 and 13.2 PCT.

Re Item V

Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

- 1 The subject-matter of claims 1 and 6 differs from the prior art by the special technical features listed in point IV.2.2 above.

The subject-matter of claims 1 and 6 is therefore new (Article 33(2) PCT).

- 2 The respective problems to be solved by the present inventions are mentioned in point IV.2.3 above. The solutions to these problems as represented by the special technical features proposed respectively in claims 1 and 6 of the present application are considered as involving an inventive step (Article 33(3) PCT) because no previous disclosure has identified the

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(SEPARATE SHEET)**

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said problems as the application nor has suggested the solutions given by the inventions.

- 3 Claims 2 to 5 are dependent on claim 1 and as such also meet the requirements of the PCT with respect to novelty and inventive step.

January 18, 2005
PCT/IB2004/002002
P 8 067 PCT/EU

Claims

1. A filling valve for aseptic filling of alimentary liquids comprising:

a valve body (7);

a filling mouth;

a feeding conduit (3) which is arranged such that a product stream to be filled into a container flows through the valve body (7) out of the filling mouth; and

an auxiliary conduit (2) for supplying aseptic and/or inert gas which is arranged such that in an area near the filling mouth the product stream is isolated from the atmosphere by means of a coaxial flow of the aseptic and/or inert gas;

characterized in that

the auxiliary conduit (2) is arranged and formed such that the valve body (7) is surrounded coaxially by the

auxiliary conduit (2), thereby ensuring that the aseptic and/or inert gas completely surrounds the product stream in a circumference direction.

2. The filling valve of claim 1, characterized in that the valve is adapted for continuous outflowing of the aseptic and/or inert gas through the filling mouth for reducing the presence of oxygen in a top part of the container.

3. The filling valve of claims 1 and 2, characterized in that the filling valve is adapted for maintaining the aseptic conditions of the filling valve also when the filling valve is closed.

4. The filling valve of one of claims 1 to 3, characterized in that the auxiliary circuit (2), which is fed during a filling operation by a flow of the aseptic and/or inert gas for assuring an aseptic condition of the filling process is adapted for being used for a re-circulation of a sanitizing fluid which is fed by the feeding conduit (3).

5. The filling valve of claim 4, characterized in that during the sanitation of the filling valve the filling mouth is closed by a lid in cooperation with a sliding manifold (11) which is located on the valve body (7).

6. Filling valve for an aseptic filling of alimentary liquids comprising a feeding conduit (3) for a product stream

to be filled in a container such that the product stream flows from the valve in an area near a filling mouth of the container underneath, wherein the product stream is isolated from the atmosphere by means of a coaxial flow of an aseptic and/or inert gas, which is fed by an auxiliary circuit (2) surrounding the filling mouth, and wherein the auxiliary circuit (2), which is fed during a filling operation by a flow of the sterile and/or inert gas for assuring an aseptic condition of the filling process, is adapted for being used for a re-circulation of a sanitizing fluid fed by the feeding conduit (3), characterized by a lid (9), by which during the sanitization of the filling mouth the valve (7) is closed in cooperation with a sliding manifold (11), which is mounted on the body of the filling valve (7).